

Another object of the invention is to provide interworking of link layer protocols between different radio systems. This is achieved with a method for performing a handover between two radio systems with different physical traffic channels and different radio link protocols comprising retransmission mechanisms, the method comprising a step of handing over a  
5 non-transparent call from a traffic channel of the old radio system to a traffic channel of the new radio system. The method is characterized according to the invention in that the method comprises further steps of

retaining the radio link protocol of the old radio system between a  
10 mobile station and an interworking function,

transmitting the radio link protocol frames of the old radio system adapted to the traffic channel of the new radio system.

~~The invention also relates to methods of claims 22 and 25.~~

~~The invention also relates to a mobile station according to claims  
15 12, 23 and 26 and to a telecommunication system of claims 17, 24 and 27.~~

19 Further, the invention relates to a data transmission method of claim  
28 and to a mobile communication system of claim 31. 27

According to an aspect of the present invention, in a handover of the type described above the radio link protocol of the old (handover origin)  
20 radio system is also retained in the new (target) radio system after the handover. The "old" RLP is merely adapted to a physical traffic channel of the new radio system. Due to this simple but effective arrangement, possibly ongoing sequences of selective retransmissions and retransmission requests in the old RLP are not interrupted or disturbed, wherefore it is possible to also  
25 avoid the manipulation of buffer synchronization which might lead to retransmission complications and the loss or doubling of data as a result of the handover.

The adaptation of the "old" RLP to a traffic channel of the new radio system can be carried out in several different manners. One alternative is to  
30 insert the RLP frames of the old radio system into protocol data units of a lower protocol layer on the traffic channel of the new radio system in place of the RLP frames of the new RLP. This means that no RLP protocol is set up in the new radio system if it is not required for some other reason. If the length of the RLP frames of the old radio system equals the length of the RLP frames of  
35 the new radio system, the old RLP frames can be inserted as such. Usually the frame lengths of different protocols vary.